THE DIRECTOR OF CENTRAL INTELLIGENCE

WASHINGTON, D.C. 20505

DDI #7275-82 8 September 1982

National Intelligence Council

But he had been the same with the first the

FROM:	
	National Intelligence Officer for Economics
SUBJECT:	The Basis of a Common Allied Policy on Economic Relations with the USSR
Allied Policy on opening paragrap the paper and ha	a revised version of my paper, The Basis of a Common Economic Relations with the USSR. I have rewritten the to make it more consistent with the thrust of the rest of the included statistical material (Annex A), information on aported Western equipment and technology for military
purposes (Annex	
Your specific su NIOs and DDI ana	ggestions on other parts of the paper as well as those of lysts have also been incorporated.
discuss the pipe in limbo, in par on an approach t tentative plan i periphery of the month. This del	stand that the planned Buckley mission to Western Europe to line issue and if possible build bridges to our Allies is to because the West Europeans cannot agree among themselves to the US. Buckley's assistant tells me that the present to discuss these questions with the Europeans on the UN General Assembly meeting scheduled for the end of the lay apparently gives us more time to get our assessments and Please let me know whether you would like to send a paper under your signature, or alternatively have any

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Attachment, As stated

DDI #7275-82 8 September 1982

25X1

SUBJECT: The Basis of a Common Allied Policy on Economic Relations with the USSR

DCI/NIO/Econ	bha(8 Sept 82)	
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The Basis of a Common Allied Policy on Economic Relations with the USSR The Need for Allied Consensus

- 1. The USSR will need a large and growing Western market for its natural gas and massive amounts of Western pipeline equipment and credit to prevent a decline in its hard currency imports in the 1980s. Since major East-West projects, such as the gas deal, require the encouragement and support of Western governments, these governments can have a substantial impact on Soviet hard currency import capacity, and consequently on Moscow's ability to use such imports to ease its increasingly severe economic problems. Although the large size of the Soviet economy and its relatively small dependence on trade with the West limit the impact of Western economic actions, such actions could significantly affect the cost of Moscow's policy options and, over a period of years, diminish the USSR's ability to carry the burden of its military machine and support its empire. This does not mean, however, that Moscow is likely to be accommodating in the face of Western economic pressure; Western influence on Soviet policies is modest, and can best operate in indirect and subtle ways.
- 2. The small US share in total East-West trade and the limitations on US ability to control trade indirectly (i.e., through controls over licensing, branches and subsidiaries) make allied cooperation necessary if the West is to take much advantage of such potential as it has for affecting Soviet economic and military development. Moreover, major continuing disputes with our Allies over East-West economic policy are bound to damage the Alliance by giving Moscow handles to use against us, reducing Allied cooperativeness in the military and political arenas, and worsening the atmosphere for the resolution of other economic differences.

- 3. The limited consensus achieved in June at the Versailles Summit on East-West economic policy has disintegrated as a result of public interpretations of the agreement by the French and Germans which suggested a narrower agreement than we had supposed, and of the US decision to expand oil and gas sanctions to include retroactive and extraterritorial elements. Although many other issues involving our relations with Western Europe, including steel, agriculture, etc., have contributed to the serious present concerns about the state of our overall relationship, the sanctions issue is by far the most disruptive because it is seen by Western Europeans as constituting a direct attack on traditional national prerogatives and an undue US interference in European affairs. By contrast, the other issues, although involving conflicting interests, either fall within the purview of existing international rules and agreements, or can be negotiated in the framework of longstanding institutions and political processes.
- 4. Although US and West European perspectives differ a great deal on certain East-West economic issues, substantial common ground exists within the Alliance with respect to direct economic stake, political-economic linkages, and foreign policy priorities. To maximize this common ground and build a common approach, the US and the Western Europeans will have to:
 - (1) Conceptualize and work out policies concerning East-West economic relations that are consistent and mutually understandable--for example, the perceived ambiguities in US policy were a major reason for the breakdown of the Versailles agreement on East-West matters.
 - (2) Consider the entire gamut of East-West economic relations, in order to find as broad a convergence of interests as possible--

- specific quid-pro-quos are too difficult to handle and are too sensitive to publicize.
- with announced US and West European national policies.

East-West Economic Relations in the Strategic Context

Detente, East-West Trade and Military Expenditures

- 5. Political detente in the 1970s helped to stimulate a massive increase in the volume of East-West trade--more than a three-fold increase for Western trade with the USSR and about a doubling for trade with Eastern Europe. Trade with the West also grew as a share of most Eastern countries' total trade, with the most dramatic increase occurring for the USSR. The importance of trade with the West to the Eastern Bloc economies is greater than its share in their GNP would suggest (3 to 7 percent in Eastern Europe and less than 2 percent in the USSR). These countries all rely on the West for critical imports of food, steel, and high-quality equipment. At the same time that East-West trade was booming, Soviet military expenditures also were growing rapidly. Between 1970 and 1980 these expenditures increased by about \$50 billion, at an annual rate of about 4 percent, and about the same rate as in the 1960s, when the growth of GNP was substantially more rapid. Pertinent statistics are presented in Annex A. There is little doubt that the growth of East-West trade contributed to this military buildup.
- 6. Imports of Western machinery and technology have enhanced Soviet productivity and thereby helped sustain economic growth. A large part of

Soviet imports of Western machinery and equipment were purchased on credit and most of these credits were in the form of government-guaranteed loans, often at subsidized interest rates. In the first half of the 1970s, perhaps one quarter of the growth in the volume of Soviet hard currency imports was financed by net flows of Western credits.

- 7. Western goods and technology also helped to build up the specific industries which provide the base for Soviet military production.

 Modernization and expansion of such industries as steel, chemicals, trucks, machine tools, and shipbuilding made it easier to sustain the growth of military production without having to squeeze civilian production.
- 8. Legal and illegal trade both contributed to the Soviet military effort, sometimes very substantially. The most important of these were imports of electronic components, equipment, and technology, with the great help of which the USSR was able to build a modern integrated circuits industry. In this case imports from the West constituted most parts of the puzzle, not just a few missing pieces. This successful Soviet electronics program, together with several other high technology programs which depended a great deal on Western imports, enabled Moscow to make great improvements in the sophistication of many of their weapons systems, so that they can now compete with the West in such critical areas as missile accuracy, quidance systems, and tank armor, rather than rely primarily on brute force. Specific examples of the use of legally obtained Western equipment and technology to enhance Soviet military programs are described in Annex B. There is little doubt that such imports, legal and illegal, were facilitated by the erosion of COCOM controls during the period of detente and by the low priority given to enforcement of controls by Western governments.

- 9. While detente facilitated Soviet military buildup through expansion of East-West trade, it apparently did not induce any change in Soviet priorities away from defense. We do not know of any Soviet weapons program—whether at the R&D, investment, production, or deployment phases—that appears to have been cut for foreign policy reasons during the decade, except for those affected by the SALT agreements. The Soviet military buildup appears to have continued just as if there had been no "detente." At the same time, it is obvious that detente in various ways resulted in a weakening of the Western defense effort, especially in the United States, although that connection is complex and many other factors are involved. The fact remains that US military expenditures declined during the 1970s and total NATO expenditures were flat. As a result of these trends, US military expenditures went from 6 percent above to 30 percent below Soviet military expenditures.
- 10. The military advantages acquired by Moscow in the 1970s because of the far more rapid expansion of its military expenditures make it necessary for NATO to accelerate the growth of its expenditures in the 1980s in order to catch up. The rapid growth of military spending is the principal cause of massive current and projected budget deficits, especially in the United States, in spite of cuts in social programs. In turn, the financing of these deficits ensures a high demand for loanable funds, and consequently high interest rates, even during a recession, thereby dampening private investment and economic recovery.

 Soviet Economic Trends in the 1980s
- 11. For its part, the USSR is encountering economic difficulties as severe as the West's and more fundamental. Its rate of economic growth has

slowed to under 2 percent and the chances of any substantial improvement are slim. The causes of this slowdown are basically home-grown. Some of these--a drastic reduction in the growth of population of working age and the progressive exhaustion of high quality and readily accessible energy and other resources--were inevitable. Other causes of the slowdown, however, appear to have their roots in the Soviet bureaucratic, command-type system, which encounters great difficulty in coping with the increasingly sophisticated problems of a modern economy, and in the negative reaction of Soviet workers to what they consider to be a weakening of their standard of living, and inadequate rewards for hard work and initiative within the system.

- 12. Although major systemic reforms could improve Soviet economic performance, none are in the offing, because Soviet leaders and party cadre are unwilling to take any chances with an erosion of their political power and bureaucratic control. Events in Poland have reinforced this fear. Reform attempts have basically taken the form of bureaucratic reorganizations which give new clothes to old problems. Any substantial political change after Brehznev is more likely to be in the direction of tightening controls and labor discipline, than of liberalization.
- 13. The slowdown in Soviet economic growth has entailed a dramatic decline in the productivity of investment and a much slower growth of labor productivity. Moreover, with some important sectors and industries, notably steel and grain, actually experiencing an absolute decline in output, major shortages have developed. Given an unwillingness to undertake major economic reforms, the Soviet leadership will be tempted to seek easy solutions to such problems by importing from the West.

- 14. In the past few years, Moscow has used its hard currency earnings primarily to buy the goods necessary to cover major domestic shortages. As a result of four bad grain crops in succession, food imports have risen to about 40 percent of total hard currency imports, reflecting the high priority the Soviet government gives to at least maintaining supplies of major foods, especially meat, in the consumer market. There has also been a large expansion of steel imports, especially large diameter pipe and special steels, because the Soviet steel industry lacks the capacity to support all the major Soviet economic and military programs. These priority needs for hard currency imports have squeezed Soviet imports of Western machinery and equipment, which have fallen by about 40 percent in constant prices since 1977, with most of the decline having occurred in the past two years. This fall off in imports of Western equipment is probably contributing at least in a small way to the USSR's poor productivity performance.
- 15. During the past 18 months or so, the USSR has experienced a severe foreign exchange squeeze as a result of a soft oil market, low prices for other Soviet export commodities, and unexpected expenditures, especially on aid to Poland. Although the cyclical causes of this deterioration are only temporary, the longer term outlook for Soviet hard currency earnings is poor. Unlike the 1970s, when enormous oil price increases financed the bulk of the three-fold increase in the volume of Soviet hard currency imports, the outlook for oil prices for at least several years in the 1980s is for a decline in real terms, if not in nominal terms. At the same time, the volume of Soviet oil exports is

likely to be squeezed by at least slow growth in domestic consumption coupled with stagnant or declining production. Market conditions for most other Soviet exports do not look very promising either and it does not appear that Moscow has taken adequate steps to substantially expand export capacity for most raw materials or to make the substantial investment needed in quality improvement and marketing for exports of manufactured goods. In contrast to the 1970s, therefore, likely market conditions in the 1980s point to a decline in the purchasing power of Soviet hard currency exports.

The Crucial Role of Soviet Gas and of Western Governments

- import capacity, affecting especially imports of Western equipment and technology, it must find new ways of increasing its exports to the West. This means developing new capacity as well as finding new markets. By far the most promising potential source for export expansion are the massive resources of West Siberian natural gas. Proved reserves of Siberian gas are ample to cover any likely increase in total energy consumption in the USSR during the 1980s and 1990s, together with a large expansion in gas exports to the West. Although transport costs are high, production costs of Soviet gas are low, and the USSR is willing to accept a low rate of return on natural gas investment, making it likely that Soviet gas can continue to be offered to Western Europe at prices lower than those of most alternative sources.
- 17. While Moscow has both the physical resources and a strong incentive for a large expansion of natural gas sales to Western Europe, the

Europeans will be strongly tempted by Soviet offers even beyond the present agreements on the Yamal pipeline. Soviet tactics in dealing with Western Europe on the current pipeline deal probably reveal the pattern of any future deals. A variety of national policy inducements are wrapped into a commercial package to induce the Europeans not only to accept Soviet gas, but also to finance the building of the pipeline with cheap credit. The concerns of the West Europeans about the insecurity of oil supplies from the Middle East and their desire to stimulate production and employment in depressed industries, such as steel, were major incentives for acceptance of the Yamal pipeline deal. Many Europeans consider that they are subsidizing their own export industries. In addition, the relatively low price of Soviet gas is useful to the West Europeans not only in its own right, but also in negotiations with other suppliers, such as Algeria.

- 18. Economic recession and large scale conservation have reduced European demand for gas and have substantially lowered the likely West European demand for Soviet gas through at least most of the 1980s. The Yamal pipeline is unlikely to be used anywhere near full capacity until the latter part of the decade, if then. Continued growth in European gas demand in the 1990s, however, will create room for large new supply sources, a gap that can be filled by additional Soviet gas, if some other new sources are not found in time.
- 19. Large increases in Soviet gas exports to Western Europe or Japan can only occur through government-to-government deals. The Soviets cannot build and finance the necessary pipelines and other infrastructure by themselves. Western banks will not provide the massive credits that are

needed without government guarantees. Western governments have to be willing to accept a large increase in Soviet hard currency debt. Western governments are also bound to be involved in coordinating the interests of bankers, utilities, and exporters. Consequently, the policies of Western governments are the critical factor in Soviet hard currency import prospects for the 1980s and beyond. Western governments can determine whether Soviet imports of Western machinery and technology will be severely constrained or, alternatively, maintained or even substantially expanded.

- 20. Although it is difficult to make a close link between Soviet hard currency imports and the growth of military capability, neither past experience nor current policy trends give any reason to believe that facilitating large Soviet hard currency earnings and imports will induce any restraint in their military programs. On the other hand, a tightening hard currency squeeze will make the continued rapid expansion of Soviet military expenditures more difficult and painful. Specifically:
 - o If Moscow continues to give top priority to using imports to maintain food supplies and to reduce shortages of key industrial goods such as steel, there will be less and less hard currency left to build industries which are major suppliers of military inputs. Moscow will have to make further cuts in investment to maintain its military programs, and that will further hinder modernization of plant and dampen productivity. Sooner or later, military programs, too, may have to take some cuts.
 - o Or if industrial modernization is given priority at the expense of food imports, Moscow will be taking a chance on provoking

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additional outbursts of popular unrest, and possibly on a further weakening of the incentive to work.

21. In the final analysis, Soviet decisions on the allocation of scarce resources, including foreign exchange, between civilian and defense uses, will be influenced by the evolution of domestic politics and by the state of East-West relations, as well as by economic problems. The precise outcome is unpredictable. Moscow could react to Western pressure by giving an even greater priority to defense expansion. But growing economic pressures will make the continuation of past military policies far more difficult and may provide powerful ammunition to those Soviet leaders who might want to change priorities.

Finding a Consensus with Our Allies

Allied Views and Interests

- 22. Although our Allies will probably go along with the main lines of the above analysis, developing a consensus on East-West economic policy must take into account the fact that they view their interests far differently from ours in certain important respects, notably:
 - They are exceedingly reluctant to take any steps which may lead to increased East-West tensions in Europe--which means that they strongly oppose any steps which smack of "economic warfare," although they accept the need for controls on exports of strategic goods.
 - They tend to regard trade linkages with the Soviets and East

 Europe as a stabilizing element in East-West relations, although

 views on this point differ a great deal both among and within

 West European countries.

- o They are far less concerned than the US about Soviet policies and adventures outside Europe.
- o Although East-West trade is a relatively small part of total trade for most European countries, it is important for major, often depressed industries, such as steel.
- o The Europeans and Japanese have a tradition of substantially greater government promotion of trade, including trade with Soviet Bloc countries, than does the US.

Possible Areas of Agreement

23. In spite of these different views and interests, some common ground can probably be found along the following lines:

Ordinary Commercial, Non-strategic trade--Trade which does not involve Western government assistance of any sort is acceptable except under extraordinary circumstances, such as Soviet actions constituting a major threat to the Alliance. This meets the European and Japanese requirement to eschew economic warfare and maintain commercial bridges to the East. Given likely market developments, this trade probably will decline.

Strategic Trade--The Allies have agreed in principle to tighten COCOM controls, especially through better enforcement. They may be willing to expand controls if the US can make a strong connection between Soviet imports of particular Western goods and technologies and specific Soviet military programs. The burden of proof will continue to fall mainly on US shoulders.

Interest Subsidies -- All will agree in principle that interest subsidies should be avoided, but the French in particular will insist some are necessary in order to maintain their share of the Soviet market in the face of lower inflation and domestic interest rates in other Western countries. The recent OECD agreement to raise minimum interest rates and to treat the USSR as an industrial country, coupled with a likely general decline in market interest rates, should substantially reduce the level of interest subsidies, at least for some time.

Government-Guaranteed Credits—Under present world market conditions, and given the state of East-West political relations, banks will rarely provide any long-term credit to Soviet Bloc countries without government guarantees. The implicit subsidy involved in these guarantees is the interest differential the banks would insist upon to cover the perceived risk. Such a differential could be quite large, although there is no way to estimate it. Although the Europeans and Japanese may agree with the US analysis in principle, they will almost certainly not give up this important instrument of government policy. Probably the most they would agree to would be a commitment not to expand the use of government-guaranteed credit above a certain base, and even then they would then probably keep open the possibility for expanded credits in certain situations, such as the negotiation of some major new joint projects.

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Major Specific Projects—Major projects, such as the Yamal gas pipeline, involve a variety of policy linkages and require government—guaranteed credits. The Europeans and Japanese will not commit themselves to turn their backs on any future large projects. They may agree that major projects with the USSR are not just a commercial matter for each Western country, but rather have implications for the Western Alliance, and consequently should be discussed at an early stage within the Alliance in order to weigh such issues as the impact of the project on the Soviet Bloc and Western economies, on the supply of energy and other key materials, on financial markets, and on the political and strategic position of both sides. Discussion alone will not ensure that Alliance interests are given primary consideration. It will also be necessary to consider economic inducements to turn Western countries away from attractive Soviet projects.

Possible Inducements and Sweeteners

- 24. Allied willingness to eschew government sponsored stimulation of exports to the USSR could/might be enhanced in the following ways:
 - (1) Distinguishing between the USSR and Eastern Europe and among
 Eastern European countries. A policy of differentiation will
 enable the West Europeans to continue building bridges to East
 European countries, including the politically important trade
 between East and West generally. The main issues are likely to
 be not over the principle of different action, but rather over
 the specific policy instruments--e.g., interest subsidies; export
 control policy; etc.

- (2) Develop alternative natural gas and other energy sources. This entails both filling as much of the potential gap between West European gas demand and supply as possible from non-Soviet sources and protecting employment in industries which could benefit from building pipelines to and generally selling energy equipment to the USSR. The most direct and promising substitution for potential new Soviet gas projects in the 1990s would be Norwegian gas development. If Norway could be guaranteed a market for its gas at a profitable price, the potential for slippage in the development of Norwegian gas would be much reduced, as would the attractiveness of any new Soviet project, although political pressure on Norway would probably be counterproductive. Additional sources of North African and Middle Eastern gas could also be encouraged, but these would be relatively expensive and would be considered as politically risky. The most promising projects, considering both costs and security of supply, are listed in Annex C. Indirectly, European demand for Soviet gas could be held down also by encouraging crude oil production in LDCs. However, this might require US support of some sort of international facility to develop LDC oil and gas resources--a proposal we have opposed although many European governments were in favor of it.
- (3) Improving the mechanism and climate of economic policy cooperation among OECD countries. There is a felt need to find better ways of harmonizing the monetary policies of at least the

major Western countries so as to facilitate rather than hinder the achievement of mutual economic objectives. Although East-West trade is a very small element in the general Western economic picture, more effective West-West economic cooperation would make the resolution of East-West policy issues easier.

(4) Developing new forms of cooperation within the Alliance--EastWest economic policy tends to fall between the stools of NATO,
OECD, and COCOM. New institutions, even if informal, are needed
and to be successful cooperation cannot be a one-way street.

Possible First Steps Toward Agreement

- 25. The dispute over the application of US export controls to European subsidiaries of US firms and retroactively to products based on US licenses, has led both ourselves and the Europeans to begin looking for some agreement that would avoid further damage to US-West European relations. The Europeans want the US to drop the retroactive and extraterritorial aspects of export controls and may be willing to make some specific concessions in return. The Europeans are even more concerned about the damage to their interests that may occur if the dispute continues for long and each side takes retaliatory actions against the other.
- 26. Any agreement acceptable to the Europeans would have to be broader than a simple <u>quid pro quo</u> for dropping the June 1982 extension of US export controls on oil and gas equipment. It would have both publicly announced and private elements. The following is probably the most the West Europeans might agree to if the US returns to the December, 1981 level of export controls on oil and gas equipment—thereby dropping the extraterritorial and retroactive elements.

Publicly:

- The French, Germans, and other Economic Summit countries could reinterpret the Versailles Summit agreement on East-West economic relations in a positive vein. This agreement is ambiguous enough to cover many possibilities.
- o There could be a new declaration on energy cooperation including natural gas.
- o The Europeans and Japanese could reaffirm a policy of not undercutting US export controls on oil and gas equipment to the USSR until the political situation in Poland improves.

Privately:

- The Europeans and Japanese could agree not to provide governmentguaranteed credits or any other form of government support for any oil and gas project to the USSR, beyond the contracts already signed on the Yamal pipeline, until the political situation improves in Poland.
- o They could also agree to tighten COCOM controls through improved enforcement procedures and by prohibiting exports of oil and gas equipment and technology with specific military uses.
- The US could agree to pursue the economic analysis of East-West trade, hard currency debt and credits primarily through the OECD, but the Europeans would then agree to discuss the implications of East-West economic relations for the Alliance in NATO.
- o An informal group of the Big Seven would be established to regularly discuss, or if possible coordinate policies on East-

West economic relations.

17A

ANNEX A

Economic and Military Statistics

	Total Warsaw	arsaw Pact	USSR	~	Total NATO	NATO	United States	states
	1970	1980	1970	1980	1970	1980	1970	1980
GNP (billion 1980 US\$)	1,480	2,020	1,034	1,392	4,284	5,746	1,925	2,626
Population (millions)	346	375	243	266	524	570	205	228
Per Capita GNP (US\$)	4,280	5,390	4,260	5,230	8,180	10,080	9,390	11,520
Military Expenditures* (billion 1980, US\$)	171	226	146	196	250**	251	156**	138
Military Expenditures* Percent of GNP	12	=	14	14	.	4	, ,	ហ
Military manpower * (millions)	2.0	5.7	8° 8°	4 .3	6.2	ъ. Э.	3.2	2.0

Calculated by US definition 1971

Soviet Bloc Hard Currency Debt and Debt Service Ratio

- -	Gross H Currenc (millio	y Debt	Debt Ser Ratio*	rvice
	1970	1980	1970	1980
USSR	1,800	18,200	6	9
Poland	1,103	23,400	19	101
East Germany	1,416	13,800	. 14	55
Romania	1,639	9,600	36	25
Czechoslovakia	564	4,900	9	18
Hungary	601	9,300	16	30
Bulgaria	681	3,500	30	32

^{*} Repayments of and interest on medium- and long-term debt as a share of hard currency exports.

USSR: Estimated Hard Currency Debt to the West

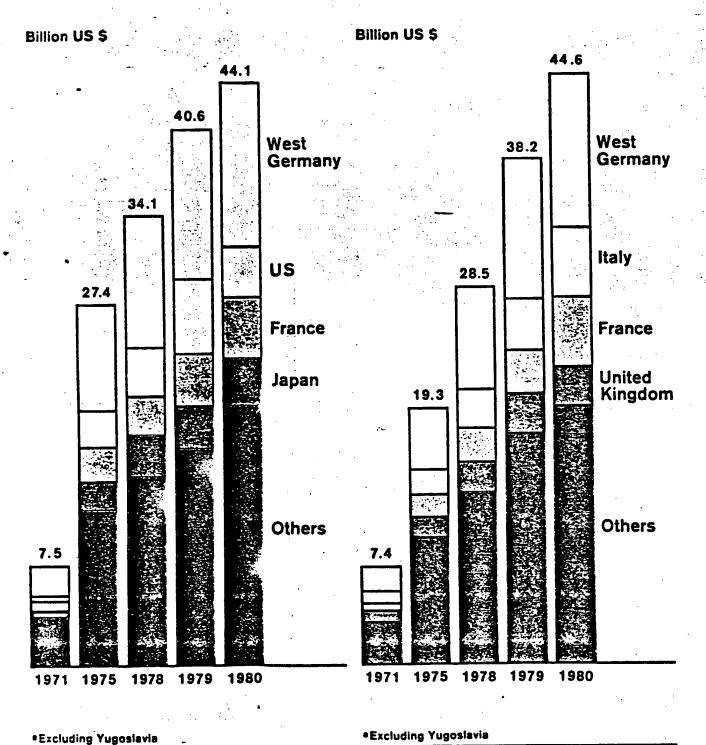
(In millions of US dollars, yearend)

	1971	1975	1979	1980	1981
Gross debt Commercial debt	1,808 407	10,577 6,947	18,047 10,479	18,200 10,030	20,940 12,500
Government and government backed debt	1,401	3,630	7,568	8,200	8,440
Assets in Western banks	1,225	3,127	8,806	8,570	8,430
Net debt	582	7,450	9,241	9,546	12,510

OECD: Exports to the USSR and Eastern Europe*

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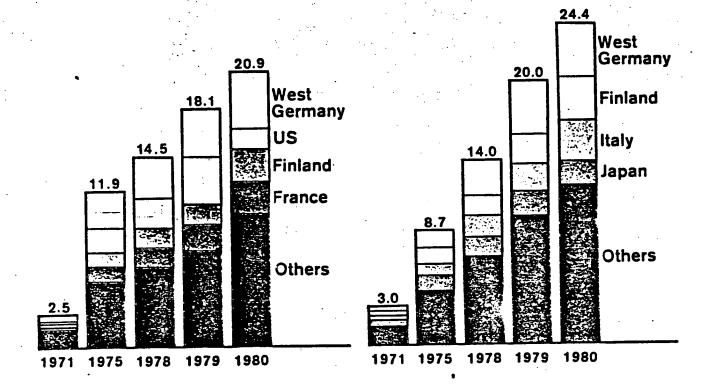
OECD: Imports From the USSR and Eastern Europe*





Billion US \$

OECD: Imports From the USSR
Billion US \$



USSR: Estimated Hard Currency Balance of Payments

(In millions of US dollars)

	1970	1975	1979	1980	<u>1981</u>
Current account balance	-103	-4,902	3,823	1,004	700
Trade balance Exports, f.o.b. Imports, f.o.b.	-560 2,424 2,984	-6,297 8,280 14,577	-2,018 19,417 21,435	-2,486 23,584 26,070	-4,000 23,778 27,778
Net interest	-83	-570	-799	-710	-1,300
Arms receipts	335	1,200	5,500	3,300	5,000
Other invisibles and transfers	505	760	1,140	900	1,000

Soviet Bloc Trade Patterns in 1980

	- Exports To			
		Eastern Europe	Developed Countries	Other
	USSR		31.9	25:8
SSR		42.3	34.2	10.3
oland	33.1	22.4	24.3	15.7
ast Germany	35.5	24.5	34.5	25.7
omania	20.7	19.1	22.2	16.5
zechoslovakia	34.4	26.9	23.7	13.1
	36.6	26.6	16.9	16.6
lungary Julgaria	50.0	16.5	10.7	

Imports From

		5 E	Developed Countries	Other
	USSR	Eastern Europe	35.4	21.7
LICCR		42.9		11.2
USSR	34.6	20.4	33.8	10.5
Poland	35.1	23.6	30.8	37.0
East Germany	16.5	15.7	30.8	10.8
Romania	36.3	28.9	24.0	
Czechoslovakia		23.9	30.3	10.3
Hungary	35.5	17.3	17.7	6.6
Rulgaria	58.4			

This table in Unclassified.

Percent

Soviet Bloc Imports From the Developed West

	As a Sh Total It		As a Sh	are of GNP	
	1970	1980	1970	1980	
USSR	24.0	35.3	0.7	1.7	
Poland	26.0	33.7	2.4	3.9	
East Germany	28.0	30.8	4.2	4.2	
Romania	40.0	33.3	3.6	3.4	
Czechoslovakia	24.8	24.0	3.1	3.3	
Hungary	27.1	30.3	5.0	7.4	
Bulgaria	19.3	17.7	3.7	4.2	

This table is Unclassified.

Percent of Total Exports

Soviet Bloc Share of Western Exports 1970-80

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
West Germany	5.6	5.6	6.5	7.1	7.7	8.8	7.6	7.1	6.9	6.5	6.3
France	3.6	3.6	3.7	3.7	3.6	5.0	4.9	4.4	3.8	4.1	4.2
United Kingdom	3.1	2.6	2.7	2.5	2.6	2.9	2.6	2.5	2.6	2.3	2.3
	5.3	4.9	4.2	4.4	5.4	6.2	5.3	5.0	4.3	3.7	3.5
Italy Ianan	2.3	2.2	2.6	2.2	3.0	3.9	4.2	3.3	3.3	3.2	2.8

This table is Unclassified.

USSR: Hard Currency Trade

(In millions of current US dollars)

					
	1970	1975	1979	1980	1981
	Imp	orts		•	
Total	2,984	14,577	21,435	26,070	27,778
Grain	101	2,323	3,279	4,360	6,217
Other agricultural products Machinery and equipment Ferrous metals Chemicals Other	657 967 303 215 741	1,760 4,593 2,627 722 2,552	2,854 6,032 3,536 1,190 4,544	4,400 6,039 3,606 1,545 6,120	5,104 4,523 3,597 1,590 6,747
	Exp	orts			
Total Petroleum Natural gas Coal and coke Machinery and equipment Ferrous metals Wood and wood products Chemicals Agricultural products Diamonds Other	2,424 430 14 106 193 137 389 64 192 175 724	8,280 3,391 220 402 647 164 739 243 547 478 1,449	19,417 9,585 1,404 315 1,574 216 1,370 542 457 1,043 2,911	23,584 11,995 2,704 366 1,466 246 1,500 746 454 1,304 2,803	23,788 11,887 3,968 179 1,534 169 1,016 770 690 {3,565

Western Europe: Export-Related Employment

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Related to Exports For:

	Total Work Force	United States	East Bloc	Pipeline Sales
West Germany	25,265	400	220	9
France	21,189	250	200	12
Italy	20,572	300	- 105	7
United Kinadom	24,397	009	125	က

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Examples of Legal Soviet Acquisitions of Western Technology and Equipment for Military Purposes

The Soviet Union legally purchases dual-use Western commercial products for military use. For example, many performance characteristics of commercial products such as communications and signal processing equipment differ little from similar military products. The Soviets commonly acquire this hardware under COCOM license ostensibly for commercial purposes, but in fact they often use it in military systems or in military-related roles. This practice, for example, has substantially benefited Soviet anti-submarine warfare capabilities. Advanced acoustic signal analyzers legally purchased from Denmark in the middle 1970s are now operational in Soviet attack submarines that track US naval units. Wide-band, high-capacity, long-distance, underwater communications cable purchased from Japan under COCOM license in 1979, is now used in a military-related role.

Because domestic models of machine tools often lack the required precision or flexibility, Soviet defense plants rely extensively on Western machine tools for metal cutting and metal forming operations. Legal Soviet purchases of Western machine tools during the past decade have amounted to over \$4 billion, about one quarter of which was spent for NC machine tools. Western machine tools find a range of applications for diverse military products. Soviet plants making military trucks, wheeled armored vehicles, and components for missile transporters employ legally purchased US gear-cutting machines. During the late 1960s and early 1970s, the Soviets purchased US grinding machines for production of small, high precision bearings suitable for ballistic missile guidance components. Since the late 1960s, a single

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Austrian firm has sold the USSR some 26 hot and cold rotary forges designed to produce artillery tubes and small arms barrels.

The USSR relies on dual-use manufacturing technology legally obtained from the West to produce its increasingly sophisticated weapons. As a result, Soviet defense plants introduce relatively advanced manufacturing approaches many years before they can develop indigenous capabilities. Western production and quality control equipment and manufacturing processes increase efficiency and productivity.

Legal purchases of Western metallurgical manufacturing technologies have substantially added to the quality of Soviet weapons. In the late 1970s, Dresser Industries built a turnkey plant in Kuybyshev, USSR, to produce rockdrill bits which included extensive tungsten-based powder metallurgy technology. The equipment and expertise provided have enabled the Soviets to make the initial tungsten powders needed for production of new and more lethal tungsten-alloy penetrators for their kinetic-energy, anti-tank projectiles. Sweden, Japan, and West Germany have made legal sales of related powder metallurgy pressing technology similar to that which Western manufacturers use to make tungsten-alloy penetrators. The Soviets also use large amounts of legally purchased processes and equipment to make much of the specialty steel they use in their military products. The French firm, Creusot-Loire, is helping to build a massive steel plant in Novolipetsk, which will produce some 7 million tons of specialty steel when operating at full capacity in 1986. Much of the plant's output will be electro-slag and vacuum-arc remelt steels like those used in submarine hulls, artillery tubes, and tank armor.

The Soviets also purchase large amounts of Western welding and

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fabrication te	chnology for o	defense production	n. In the midd	le 1970s, the
Soviets legal!	ly acquired US	blind riveting t	echnology and F	rench aerospace
welding techno	ology. The eq	uipment purchased	is now used by	Gorkiy Airframe
Plant 21 to p	roduce advance	d Soviet intercep	tor aircraft.	Tungsten arc
welders legal:	ly obtained are	e used to fabrica	te armor plate	to make Soviet
tanks.				

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